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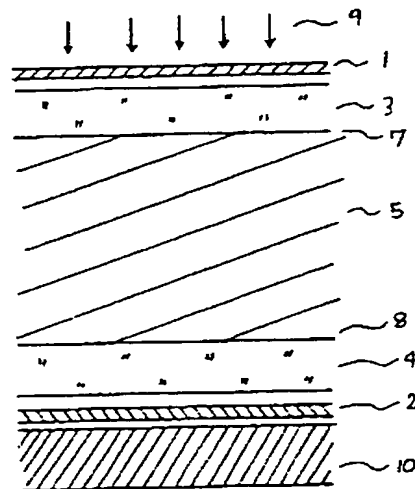
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APPLICANT : HITACHI LTD;

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TITLE : LIQUID CRYSTAL DISPLAY ELEMENT



ABSTRACT : PURPOSE: To reduce the size of a liquid crystal display element by using a solar battery in place of a reflective plate of said element so that the solar battery can be utilized in the area of the liquid crystal display element as well.

CONSTITUTION: A liquid crystal 5 sandwiched by a glass plate 3 and a glass plate 4 is disposed between a polarizing plate 1 and a polarizing plate 2 and the solar battery 10 is placed in the lowermost part. Incident light 9 arrives at the solar battery 10 and the element looks bright with the light reflected by the solar battery 10 when a voltage is not impressed between a transparent electrode 7 and a transparent electrode 8 attached to the glass plates. Electricity is generated by the light absorbed by the solar battery and can be used as a driving power source. The area part of a display pattern is shielded of light and the light does not arrive at the solar battery 10 when the voltage is impressed, but the light arrives similarly at the other part and electric power is generated. The need for separately providing areas to the liquid crystal display element and the solar battery is thereby eliminated and the reduction of the size is attained.

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